

**Ribicoff Building
Former Norwich State Hospital
Route 12 Preston, CT.**

**PCB Remediation/Abatement Work Plan
TSCA Regulated PCB Materials**

Exploratory sampling of caulking and associated impacted building material has been performed at the Ribicoff Building as part of the scheduled demolition project. PCB contaminated caulking and glazing was found at various locations such as window frames, door frames, lintels and other building materials. This plan addresses caulks that are that are regulated under the TSCA with concentrations greater than 50 PPM and any substrates contaminated by such caulks.

PCB impacted material at the Site has been delineated into three categories:

1. Toxic Substances Control Act (TSCA) regulated PCBs with a concentration equal to or greater than 50 parts per million ($\text{PCB} \geq 50 \text{ PPM}$),
2. Connecticut state regulated PCBs with a concentration equal to or greater than 1 PPM and less than 50 PPM ($1 \text{ PPM} < \text{PCB} < 50 \text{ ppm}$), and
3. Non-regulated construction and demolition (C&D) debris which is considered to be non-PCB containing material with a concentration less than 1 PPM ($\text{PCB} < 1 \text{ PPM}$).

The methodologies for PCB abatement associated with the Ribicoff Building Scheduled Demolition Project are documented in:

- The Self-Implementing Cleanup Plan, Ribicoff Building Preston, CT. prepared by Tighe & Bond, dated January 6, 2012 and revision dated May 29, 2012.
- QAAP as developed by Tighe & Bond in compliance with the EPA grant for site clean up and redevelopment dated 5/19/2011 (approved by EPA).

All of the PCB remediation/abatement associated with the Ribicoff Building Scheduled Demolition Project will be performed in accordance with the above documents.

TSCA Regulated Material ($\text{PCB} \geq 50 \text{ PPM}$)

$\text{PCB} \geq 50 \text{ ppm}$ caulking will be removed and disposed at a facility permitted to accept PCB bulk TSCA regulated hazardous waste. The adjacent contaminated brick along the left and right sides of the window caulk will be removed to a distance of 12" and disposed of as TSCA regulated waste. The caulk along the sill will be removed with the sill and disposed of as TSCA regulated waste. The caulk along the top of the window adjacent to the steel lintel will be removed and disposed of as TSCA regulated waste.

All access to the work area will be restricted through demarcation and signage with controlled access points. A barrier tape will be installed along the project boundary of the work area. As necessary, modular fencing panels will be installed adjacent to the PCB removal work area to further delineate the PCB removal operations. Adjacent to the PCB removal work areas, in the

control area, dust monitors will be utilized to monitor for total suspended particulates (TSP). These samples will be collected prior to the start of removal in order to establish a background level. Sampling shall continue during removal operations. The TSP level during removal shall not exceed 20% above the established background level of TSP. The Building Owner will retain a PCB Engineer to oversee the remediation activities. A Project Monitor will be assigned to the site for full time observation.

The contractor plans on using removal techniques that employ “minimal dust” generating methods. The caulk and adjacent substrates scheduled for removal shall be demarcated with spray paint. The interior of the windows to be removed will be sealed with 6 mil polyethylene sheet to prevent migration of dust to the interior of the structure. The caulk and adjacent substrates shall be removed using mechanical methods. In all cases, dust monitoring will be utilized to ensure minimal migration of dust.

Prior to any removal or work around PCB ≥ 50 ppm material, a regulated area shall be erected that is comprised of two layers of overlapping 6 mil sheeting on ground adjacent to the façade being abated. Poly sheeting shall be installed over any penetrations in the work area such as doors, window or vents that are scheduled to remain. Signs shall be posted to prevent access by unauthorized personnel.

Dust control measures that will be employed will include water misting or vacuums with HEPA-type collection filters to suppress and control any dust or emissions. Perimeter dust monitoring as specified in the SIP will be completed in and around this area to ensure proper dust controls and protection of the neighboring properties. In the event visible dust leaves the work area on a sustained basis or readings are recorded with the dust monitoring above the action levels, alternative dust control measures will be implemented.

The window units shall be removed from the façade utilizing an excavator as a hoist to assist in the lifting of the unit and placement on prepared sheets of poly sheeting laid within the regulated area. Alternatively the window units may be placed directly into the disposal can that has been prepared with 2 layers of poly sheeting.

The window units are ganged, with multiple pieces attached together into one structure, and weigh approximately 550 pounds each. The window units cannot be removed and lifted manually due to the construction and weight. The size of the units exceeds the man lift dimensions and therefore cannot be safely removed and placed in a man lift. There is no safe way to remove the units individually and therefore a machine removal is necessary for the safety of the workers.

All resultant debris (brick, caulk) shall be gathered and placed in the disposal can. Prior to removing the can for disposal the can will be wet wiped of all visible debris and sealed for transport.

After mechanical removal of the windows and debris workers shall address the remaining substrates and caulk by accessing the window openings by man lift.

The workers will manually scrape any remaining caulk (particularly from the steel lintels) and hammer any remaining brick that is highlighted for removal with spray paint. The project monitor will visually clear all removal areas within the work area.

Upon completion of the PCB \geq 50 ppm caulking and associated substrate removal, the remaining substrate will be tested by the Owner's Representative (Eagle Environmental), as described in the approved SIP, to ensure adequate removal of the PCB impacted substrate.

The steel lintels located above the windows on Elevations A and C are to remain as they are integral to the structure of the building. The PCB caulk located at the steel lintels will be removed by hand tools after the gross PCB removal of the side and bottom caulk and associated substrates (brick and sills). The steel lintel will be visually inspected to ensure removal of all visible caulk from the substrate.

Post visual clearance MBI will clean the lintel surface with Capsur, following all manufacturers' recommendations. PPE specific to the product will be utilized during this portion of the work (OV respirator cartridges, chemically resistant glove, etc.). The surface will be cleaned and wiped with solvent. The worker will wipe solvent onto the surface and wipes clean two times, using clean rags for each wiping process.

The monitor will perform wipe clearance testing of the lintels in accordance with the submitted SIP.

PPE

During all PCB work activities personnel shall be equipped with the appropriate Personal Protective Equipment (PPE) for the task. Such PPE may include but not be limited to a $^{1/2}$ face respirator with approved cartridges, Tyvek (or comparable) suits, chemical resistant gloves, hard hat, work boots, and safety glasses. Should additional PPE be necessary the task will be assessed and additional PPE will be provided accordingly. All used PPE shall be disposed of as PCB waste in the applicable PCB containers.

Prior to leaving the regulated work area for PCB removal operations, the employees shall perform personnel decontamination as well as equipment decontamination. Personnel decontamination shall consist of a contiguous single chamber airlock and a remote decontamination unit located within the control area. All equipment, tools and personnel shall be decontaminated prior to leaving the control area. The water utilized in the decontamination shower shall be collected for testing and proper disposal. All personnel decontamination shall be conducted at break time, the end of shift, or at any other time when the employee is leaving the regulated area. Tools and equipment shall be decontaminated each time they are removed from the regulated area. During project use, tool and equipment decontamination shall consist of wiping methods with commercially available cleaners and rags. At the end of their use on the project, non-disposable tools and equipment will be decontaminated following the procedures described in 40 CFR 761.79c. All used decontamination material shall be disposed of as PCB waste in applicable PCB containers.

Following please find our field PCB Abatement Controls Plan for use on this project. This procedure will be implemented and acknowledged by workers and Supervisors performing PCB operations.

PCB Abatement Controls

A. Abatement Activities/Engineering Controls

1. Prior to the removal of any PCB containing materials a regulated area shall be constructed of 2 layers of 6 mil poly sheeting the ground adjacent to the work area. The poly shall be alternatively overlapped. All penetrations on the façade to be abatement will be sealed with 2 layers of 6 mil poly with duct tape. The material to be removed shall be demarcated with a bright spray paint that is readily visible. A single unit airlock shall be constructed adjacent to the work area for initial decontamination.
2. In order to minimize the silica/dust and/or PCB dust exposure a water mister or similar pump sprayer shall be utilized to mist the area with water.
3. HEPA vacuums will be used to clean up any remaining PCB debris, dust or other materials in the work area (i.e. poly sheeting, scissor lift, aerial lift etc.).
4. During any work/abatement activities (i.e. work zone, PCBs etc.) barricaded areas will be posted for isolation controls (i.e. work zone isolation, clean and dirty area separation etc.).
5. All PPE, tools, and/or any non consumables used during abatement activities (respirators, hand tools, and any outer clothing that is not to be discarded etc.) will be properly decontaminated to avoid cross-contamination. During use on the project, equipment decontamination will be performed through spraying and wet wiping. At the end of their project use, non-disposable tools and equipment will be decontaminated following the procedures described in 40 CFR 761.79c (2). Decontamination materials will be containerized for off-Site disposal.
6. All personnel shall exit through the airlock and then the 3 stage decontamination unit including a shower. All outer clothing (consumables) will be placed in a properly labeled waste container during PCB abatement activities (i.e. TYVEK, outer rubber gloves). Personnel leaving the PCB regulated area shall perform personnel decontamination as well as equipment decontamination.
7. Water generated during decontamination and as part of dust suppression will be containerized on-Site, sampled, and designated for off-Site disposal in accordance with 40 CFR 761.79.
8. Personnel decontamination shall occur at break times, end of shift or any time personnel is leaving the regulated area.
9. All PCB ≥ 50 ppm is to be treated as TSCA Regulated PCB waste ≥ 50 ppm (caulking and adjacent substrates).
10. Training: Medically qualified workers to be used (i.e. respirator qualified etc.) - 40 hr HAZWOPER trained - Workers trained in proper operation of tools to be used.

B. Industrial Hygiene Monitoring

1. Sample workers for a full shift using the NIOSH and/or OSHA Methods.
2. Select an appropriate number of employees to sample. 25% is generally recommended.
3. If possible take at least 2 samples. A personal breathing zone and an area sample (if feasible).
4. A sorbent filter and florosil tube PCB set-up need to be used when sampling for PCB's.
5. Perform sampling during normal work activities. Send samples to:
Environmental Health Labs,
100 Sebethe Dr., Suite A-5,
Cromwell, CT 06416, (800) 243-4903 (or other approved laboratory).

C. Personal Protective Equipment

1. Respirator (HFNP with p/100 filter) only when abating/disturbing PCB contaminated materials. Initial monitoring shall be conducted to determine exposure and if respirators are needed.
2. Tyvek (or equivalent) suit.
3. Hard Hat, work boots, safety glasses
4. Work gloves to be used at all times. In addition, inner rubber gloves + outer leather work gloves during PCB abatement activities, only.
5. Face shield to be used during demo and removal activities.

D. Signs

1. Demarcate control areas with appropriate signs during all activities.

E. General Safety

1. Visible contact, NEXTEL or 2-way radios to be used for communication
2. Inspect all tools/equipment prior to use.
3. Notify foreman or supervisor of any damaged tools and label "DO NOT USE"
4. Wear all required PPE
5. Perform House Keeping pre and post activity.
6. Stay Hydrated
7. Recognize heat stress/exposure signs and immediately notify

F. Equipment and Tool Decontamination

1. Any person decontaminating movable equipment contaminated by PCBs, tools, and sampling equipment may do so by
 - i. Swabbing surfaces that have contacted PCB with a solvent (Capsur or equivalent)
 - ii. A double wash rinse as defined in Subpart S as follows:
 - *First wash.* Cover the entire surface with concentrated or industrial strength detergent or non-ionic surfactant solution. Contain and collect all cleaning solutions for proper disposal. Scrub rough surfaces with a scrub brush or scrubbing pad, adding cleaning solution such that the surface is always very wet, such that each 900 cm² (1 square foot) is washed for 1 minute. Wipe smooth surfaces with a cleaning solution-soaked disposable absorbent pad

such that each 900 cm² (1 square foot) is wiped for 1 minute. Wash any surface <1 square foot for 1 minute. Mop up or absorb the residual cleaner solution and suds with a clean, disposable, absorbent pad until the surface appears dry. This cleaning should remove any residual dirt, dust, grime, or other absorbent materials left on the surface during the first wash.

- *First rinse.* Rinse off the wash solution with 1 gallon of clean water per square foot and capture the rinse water. Mop up the wet surface with a clean, disposable, absorbent pad until the surface appears dry.
- *Second wash.* Cover the entire surface with organic solvent in which PCBs are soluble to at least 5 percent by weight. Contain and collect any runoff solvent for disposal. Scrub rough surfaces with a scrub brush or disposable scrubbing pad and solvent such that each 900 cm² (1 square foot) of the surface is always very wet for 1 minute. Wipe smooth surfaces with a solvent-soaked, disposable absorbent pad such that each 900 cm² (1 square foot) is wiped for 1 minute. Any surface <1 square foot shall also be wiped for 1 minute. Wipe, mop, and/or sorb the solvent onto absorbent material until no visible traces of the solvent remain.
- *Second rinse.* Wet the surface with clean rinse solvent such that the entire surfaces is very wet for 1 minute. Drain and contain the solvent from the surface. Wipe the residual solvent off the drained surface using a clean, disposable absorbent pad until no liquid is visible on the surface.

G. Waste Management and Disposal

1. Upon completion of remedial activities within a work area, or at the end of each work day, work areas will be inspected and all debris and waste materials will be transported to the waste storage area and placed into appropriate containers prior to off-site disposal.
2. All waste materials will be stored on-site in appropriately labeled, secure waste containers at designated waste storage locations. The storage containers will be leak tight (bags, drums with an enclosed transportation unit – either a 30 yard or 40 yard can). The container and storage unit will be labeled in accordance with 40CFR 761.45. A large mark (ML) will be used wherever feasible. The PCB waste shall not be stored on site for more than 30 days prior disposal. Each container will be labeled with the start date that PCB waste has been stored in order to ensure compliance with the 30 day storage limit. The waste containers will be inspected at least weekly to ensure there is no leakage.
3. When full, or at the completion of remedial activities waste container with TSCA regulated ≥ 50 PPM PCB waste will be transported off-Site for disposal at the TSCA approved landfill located in Model City, New York operated by CWM Services.